

PROBABLE IMPACT OF TECHNOLOGY ON EASE OF DOING BUSINESS

Jitesh Chandra Saha*

ABSTRACT

Covid-19 pandemic made human being to stay back home and work from home for shrinking infection capacity of this disease. Not only service professionals are encouraged in this way to deliver their assignments with availability of present day online activities, but also new start ups and store houses can be initiated at home through online website development, product display, advertisement and delivery, eliminating requirement of specified spaces and markets for garnering product businesses. Quantitative as well as qualitative products, if there is requirement for those, any producer whether at city and remote places can save resources earlier needed for brick and mortar led infrastructure construction to initiate a business and spend instead economically for technological assistance. Some producers will have double identity, on one hand a producer and other hand, a businessman. Similarly, home surroundings will have double utilisation, first for residential and second for commercial purposes. This will increase ambit and arena of entrepreneurship for every human being, provided some physical and abstract commodities are produced by them and those are liked by other living beings known as customers. Even a person not producing anything, presently known as middlemen can start business of inventories at residence on platform of technological outlet. Permanent service holders if permitted can open start ups alongwith contractual workers and part time workers at their spare time, overall informal sectors can swell up further. Business mentality will get strengthened, surrounding environment will become prone to this tendency and through heredity, upcoming generation will take birth from women womb with this exchange characteristic in chromosome structure facilitating ease of doing business further, obviously with few exceptions. From all these perspectives, this paper makes an attempt to grasp the ways (such as cost minimisation by eliminating processes that usually remain associated to prevailing business structure) through which technological innovation can probably facilitate ease of doing business further during Covid-19 and after its passage.

KEYWORDS: Covid-19, Entrepreneurship, Technological Assistance, Informal Sector, Remote Places.

Introduction

During ancient period people were accustomed to arrange self for fulfilling needs and as they became civilised by wearing clothes and needs multiplied manifold through population expansion, due to limitation of production hours and individual capacity to produce bulky volume for satiating all, they needed exchange of their produce with others resulting into barter trade. It had no space earmarked for what presently is termed as market place where people come together at fixed and flexible timing depending upon its nature. Later on, discovery of new spaces through voyages, inventions and scientific advancements expanded arena of such business activities beyond national and international boundary. New markets had been developed nearby trade routes for international and national exchange at such a place where people can flock together, usually located away from their habitat settlement areas. Their transaction activities led other countries and regions to enter into development trajectory through trade relationships. Maritime routes such as the 'Spice Route' linked east and west by sea to trade in spices as well as a network of roads connecting the Silk Route helped in establishing commercial and political contacts with adjoining foreign kingdoms and Asian empire, in particular and the World, in general. Due to flow of goods and valuables along these routes, chief kingdoms, important trade centers and industrial belts had been flourished to facilitate further progress of domestic and international trade in ancient India. Cities like Harappa and Mohenjodaro became developed as commercial centers due to establishing trade of gold, silver, copper, coloured gemstones, beads, pearls, sea shells and terracotta pots with Mesopotamia

* Assistant Professor, GDC, Kamalpur, Dhalai, Tripura, India.

through water and land ("*Business, Trade and Commerce*", 2020-21). Expanding population of the world further extended size of business class people and development circle started forming with existing markets at centre through building of necessary infrastructure like hotels, restaurants, financial institutions, godown to manage inventory accumulation, water and electricity connection for facilitating transaction activities. These business class people basically functioned as one type of middlemen among producers, customers and ultimate consumers while some of them grew to distributors over time. There was no avenue of employment for home delivery as producers, businessmen, middlemen and consumers, all used to get contact through these market places. Later on telecommunication development had brought improvement in this process as order placement and delivery could have been ensured over wire even though very few distributors and businessmen undertook middlemen activities of delivery to their customers through upgradation of transportation linkages. This process was further facilitated by linking regional corners through extending various modes of transportation and consequent development of small markets via business transactions in semi-urban and rural areas. This structure of business network at national and international market is presently under microscope for change with latest advancement of telecommunication technology which is one step further in online activities after being initially confined to limited circle of people possessing required resource and infrastructure. Reach of technological advancement through digitisation is not limited to upgradation of telecommunication network only, in fact it is touching almost all aspects of human activities and other spheres through development of various apps which can be easily installed in a little mobile. Differentiation between habitation and business areas is likely to get effected to some extent as anyone starting new business afresh will not feel urge to occupy a space in market area, thereby traditional concept of market places is also ending up on virtual platform. Initiating business at residence by making spaces for inventories, new start-ups can save their time and resources usually required for rent, showroom, registration works and customers awareness generation by availing various forms of digital assistance. According to Johansson, 2018 unlike brick and mortar businesses (BMB), physical location and building of storefront are not necessarily required during beginning of e-commerce operations as these digital initiatives can sell products online by website and virtual shopping carts. Orders can be placed remotely and goods then can be mailed to customers. Apart from economising expenses on rent, inventory warehousing, employee and property taxes of traditional BMBs, business class can get advantage of personalised and flexible product marketing for generating customer attention and its retention through various online channels of digital social media. Similarly, according to Apavaloie, 2014 location as a factor is becoming increasingly less important in making economic decisions and business hours are getting flexible presently to accomplish transaction at any time during day and night. Due to fall in various types of costs required to start business and associated rise in productivity, many small companies are also opening up in internet related service markets like telecommunication, information technology, multimedia content and software development where business restructuring for e-business was initiated earlier and this is now spreading faster to other sectors like tourism, banking, stock exchange, book sales and various merchandise. Doing business will thereby become further easier and a new channel of home delivery, intermediary and distribution will be added to existing business practices. Significance of research and development activities is accordingly enhanced further in inculcating and incubating innovative tendency in human beings and alongwith other required factors, daily upgradation in product, process, marketing and organisational innovations to conquer human minds, their formed physical and virtual markets, are thereby emerging as one of the important components to decide future direction in business sector progress. From all these perspectives, this paper makes an effort to study factors more closely associated to innovation potential of different countries and prospective ease of doing business that can invigorate from expense economisation to excel further in true commercial pursuits.

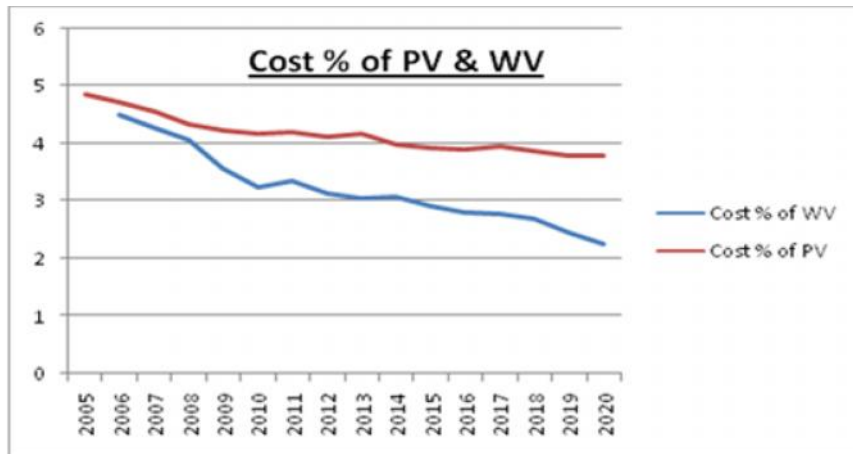
Ease of doing Business

For evaluating present status of doing business, we took data from World Economic Forum (WEF) which provides rank, score, time and cost statistics on eleven indicators like Ease of doing business (EODB), Starting a business (SAB), Dealing with construction permits (DWCP), Getting electricity (GE), Registering property (RP), Getting credit (GC), Protecting minority investors (PMI), Paying taxes (PT), Trading across borders (TAB), Enforcing contracts (EC) and Resolving insolvency (RI) from 2004 to 2020 for one hundred and eighty nine countries. From those eleven indicators, data on particularly three aspects namely, (i) Cost as % of Warehouse value (**WV**) under DWCP, (ii) Cost as % of property value (**PV**) under RP and (iii) Cost as % of income per capita (**PCIGE**) under GC are taken into account for analysis:

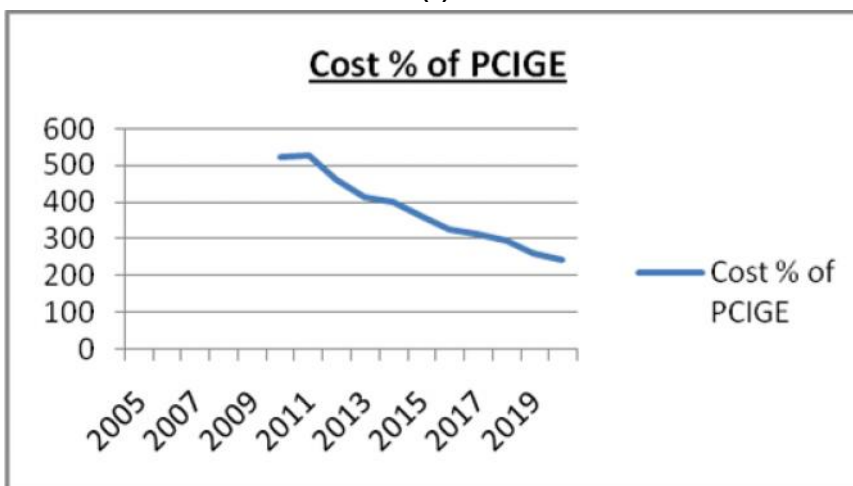
- **WV** records all official costs for completing procedures to build a legal warehouse including obtaining land use approvals, preconstruction design clearances, inspections before, during and after construction, obtaining utility connections, registering warehouse at property registry and incurring nonrecurring taxes required for the project execution.
- **PV** takes entries of total official and lawful costs borne by both buyers and sellers for completing procedures to transfer property including fees, transfer taxes, stamp duties, any other payment to property registry, notaries, public agencies and lawyers.
- **PCIGE** keeps account of fees and costs for completing procedures to connect a warehouse by electricity, including those expenses related to applying for connection, obtaining clearances from government agencies, receiving inspections of both site and internal wiring, purchasing material, getting actual connection works and paying a security deposit.

In the beginning, geometric mean was calculated to average those cost share over years as well as over different regional spaces represented by East Asia & Pacific (EAP), Europe & Central Asia (ECA), Organisation of Economic Cooperation and Development (OECD), Latin America & Caribbean (LAC), Middle East & North Africa (MENA), South Asia (SAS), Sub-Saharan Africa (SSA), High income (HIC), Low income (LIC), Lower middle income (LMI) and Upper middle income (UMI) countries. Timewise and spacewise performances in this regard are depicted in following *Figure-I*:

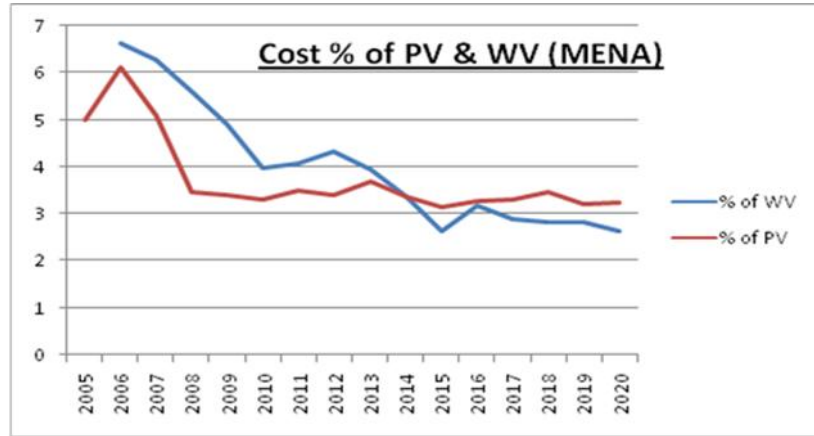
Figure I



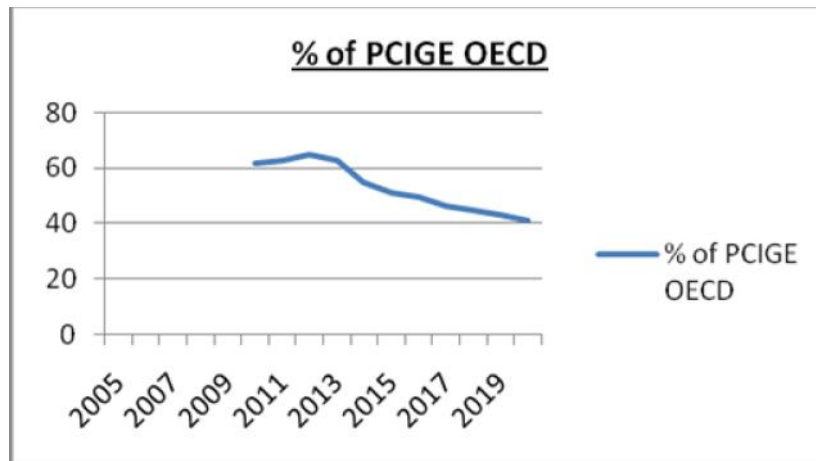
(a)



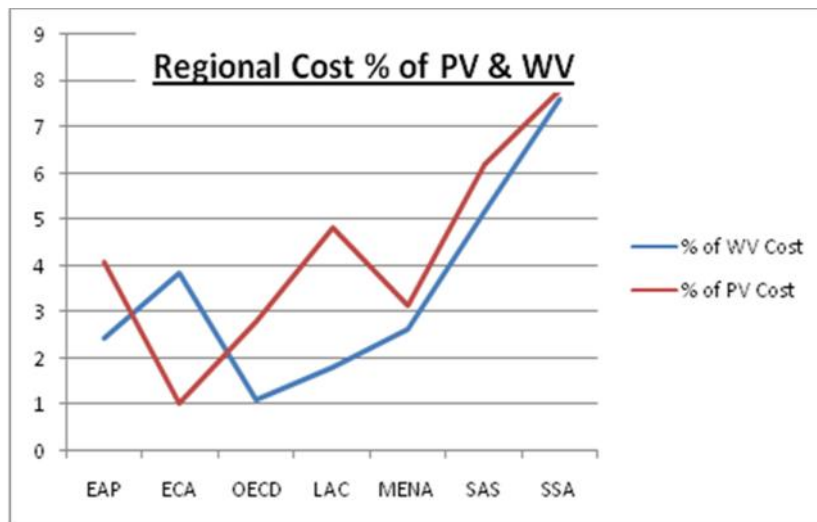
(b)



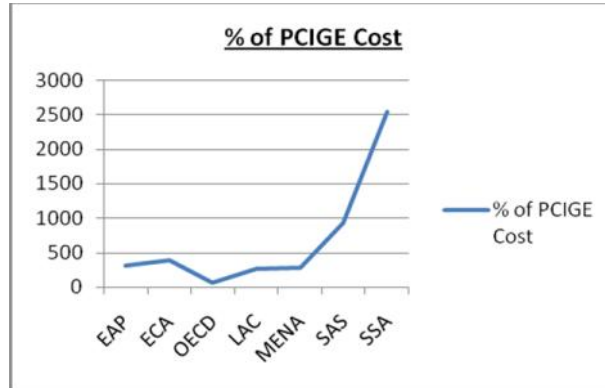
(c)



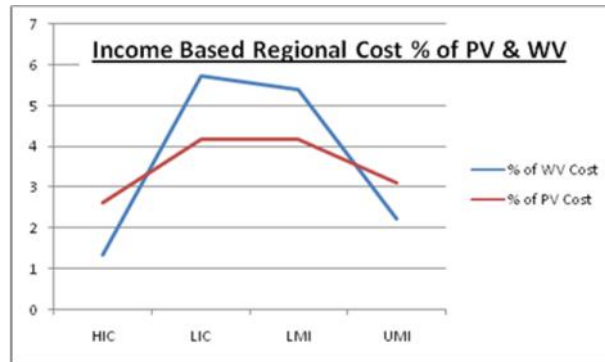
(d)



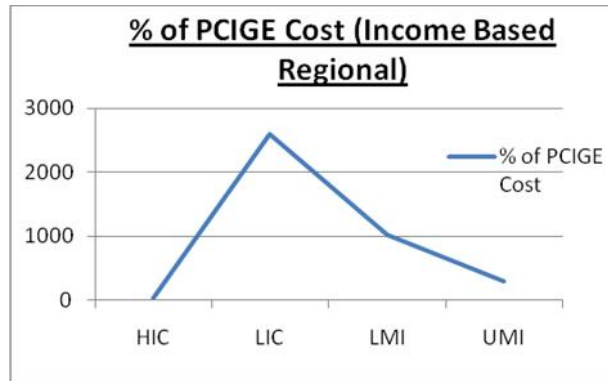
(e)



(f)



(g)



(h)

Source

World Economic Forum, PV - property value, WV - Warehouse value, PCIGE - Income per capita, EAP - East Asia & Pacific, ECA - Europe & Central Asia, OECD - Organisation of Economic Cooperation and Development, LAC - Latin America & Caribbean, MENA - Middle East & North Africa, SAS - South Asia, SSA - Sub-Saharan Africa, HIC - High income countries, LIC - Low income countries, LMI - Lower middle income and UMI - Upper middle income

From part (a) and (b) of the above figure, it can be noticed that all concerned cost shares of PV, WV and PCIGE are falling over years and RP cost is always very higher followed by that of PV and WV respectively. Downward trend of these expenses are characteristics of almost all the above defined regions as specifically represented by part (c) and (d) for MENA and OECD areas respectively except the few pattern observed in PV and WV shares of EAP, PV share of OECD, SAS and WV share of LIC. WV share is found to be exceptionally higher for ECA, LIC and LMI

countries while this did exist for MENA and SAS countries at periods before 2012-13. Only SSA countries depict close to equality in respect of those two cost shares from 2004-2020 albeit at higher level. Part (e), (f), (g) and (h) show cross-sections of concerned three cost shares for EAP, ECA, OECD, LAC, MENA, SAS, SSA, HIC, LIC, LMI and UMI countries at particular year among studied period of analysis as representative and pattern is almost same for all other years. It is very clear that as we proceed from EAP to SSA countries via those ordering of regions, particularly after OECD, cost shares of all three measures PCIGE, PV and WV start rising steeply and this is also found true for lower income based regions represented by LIC and LMI countries relative to other nations of HICs and UMIs. Nullifying various costs of PCIGE, PV and WV through use of digital technology in business sector of particularly SSA, SAS, MENA, LAC, LIC and LMI regions relative to other World spaces, can thereby lead to greater economic use of resources and this can be very significant for resource crunch people and regions to progress further.

Innovativeness

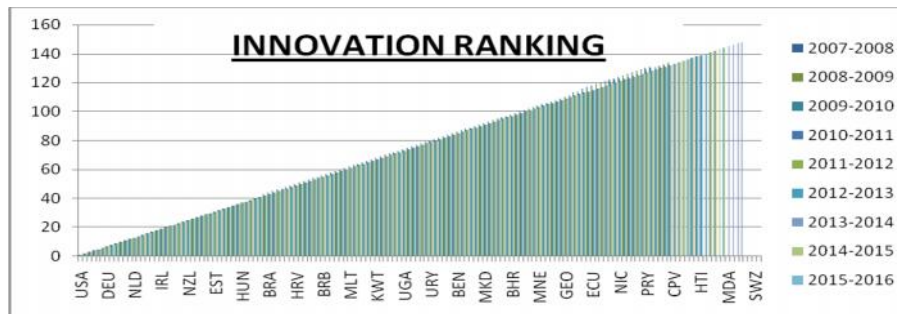
This part is based upon WEF dataset on Innovation index (INNI) out of twelve such broad indices forming Global Competitiveness Index (GCI) available for one hundred and fifty two countries rankwise and valuewise from 2007-2018. INNI is having seven component indices, namely Capacity for innovation (CFI), Quality of scientific research institutions (QOSRI), Company spending on R&D (CSORD), University-industry collaboration in R&D (UICIRD), Government procurement of advanced tech products (GPOATP), Availability of scientists and engineers (AOSAE) and PCT patents, applications per million populations (PCTPAPMP). In order to find degree of association among INNI and seven these sub-indices, Spearman's correlation coefficient was estimated for different years and results are given in the following *Table-1*. From this table it can be observed that four sub-indices CFI, QOSRI, CSORD and UICIRD are having very strong correlation coefficient with values above .90 and rest three GPOATP, AOSAE and PCTPAPMP range from .68 to close to .80. In order to find relative status of the one hundred and fifty two countries in respect of INNI, therefore INNI and strong four sub-indices are taken into account to search countries which are at frontline to foster innovativeness for bringing further ease in doing business. For presentation, country ranking of this consideration according to INNI, UICIRD and CFI are given in the following *Figure-II*.

Table 1

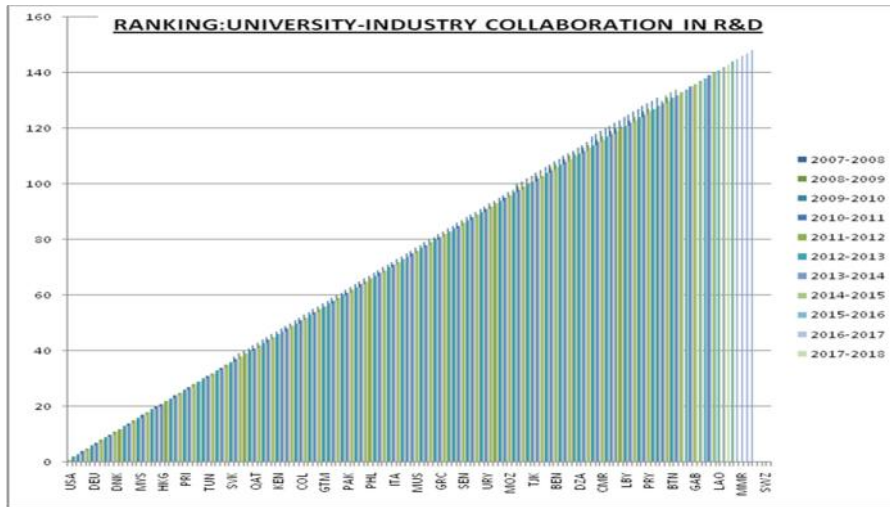
Spearman Correlation Coefficient with INNI							
Year	CFI	QOSRI	CSORD	UICIRD	GPOATP	AOSAE	PCTPAPMP
2012-2013	0.926	0.951	0.925	0.919	0.72	0.765	0.703
2013-2014	0.935	0.945	0.927	0.928	0.681	0.767	0.731
2014-2015	0.918	0.949	0.933	0.948	0.715	0.787	0.741
2015-2016	0.901	0.943	0.933	0.9	0.697	0.818	0.719
2016-2017	0.91	0.928	0.943	0.927	0.712	0.845	0.733
2017-2018	0.916	0.918	0.944	0.939	0.689	0.842	0.746

Source: World Economic Forum, CFI - Capacity for innovation, QOSRI - Quality of scientific research institutions, CSORD - Company spending on R&D, UICIRD – University - industry collaboration in R&D, GPOATP - Government procurement of advanced tech products, AOSAE - Availability of scientists and engineers and PCTPAPMP - Patent cooperation treaty patents, applications per million populations and INNI – Innovation index

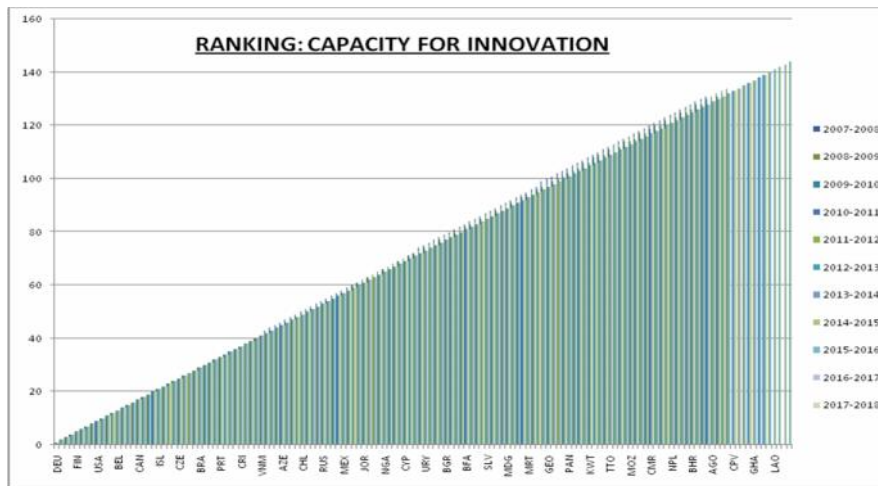
Figure-II



First Part



Second Part



Third Part

Source: World Economic Forum

From the above figures, it can be observed that mainly advanced nations and emerging economies with smaller ranks are at frontline of the innovation index and its component indices as represented by the first, second and third parts. Numerically estimation depicts that out of the first twenty five countries ranked according to INNI and its stronger four sub-indices for showcasing relative advancement, presence of Asian, Latin American and African countries is found to vary from only twenty to below forty percent, implying that the continents of North America, Europe and Oceania are leaders in this respect to frame path for others to follow.

Conclusion

Frequency at which innovation is taking place due to technological progress what human civilisation has achieved at present time, probably this is not possible in case of discovery and invention currently. As these attract human mind, innovativeness is emerging as one of the important factors that can determine degree of competitiveness to sustain in business part of this world. At the same time, innovation through outlet of online technology is making space of less significance for initiating a new business plan and building warehouses. Consequent fall in associated cost can be economic boon in lowering total cost by a good margin to begin new start ups and also can contribute economically towards existing running businesses. Ease of doing business, thus, can percolate down to people with

smaller means in the form of availing all types of incentives to participate afresh and register perseverance further. This becomes immensely significant for business class people of LAC, MENA, SAS, SSA, LIC and LMI countries compared to those of EAP, ECA, OECD, HIC and UMI nations as the former category of regions in their aggregate business expenses, carry relatively higher burden share in the form of property valuation, getting electricity connection, warehouse construction and maintenance.

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